Note: Any medication not listed in this section is not approved for aviation. Contact NAMI Code 342 if further guidance is needed.

18.1 NATOPS on Medications

General NATOPS (OPNAVINST 3710.7T, Chapter 8.3.2.5) includes the following statements on medications:

Taking drugs prescribed by competent medical authority shall be considered sufficient cause for recommendation of grounding unless their use is specifically approved by a flight surgeon, or a waiver for specific drug use has been granted by CHNAVPERS or the Commandant of the Marine Corps. Consideration shall be given to the removal of ground support personnel from critical duties, for the duration of the drug effects, if appropriate. Medications such as antihistamines, antibiotics, tranquilizers, sleeping pills, etc., shall be discarded if all are not used during the period of medication.

Because of the possibility of adverse side effects and unpredictable reactions, the use of over-the-counter drugs by flight personnel is prohibited unless specifically approved by a flight surgeon. Ground support personnel shall be briefed on the hazards of self-medication and should be discouraged from using such drugs.

In general, all medications require temporary grounding unless specifically described here as NCD for flight duties.

18.2 ANTIMICROBIALS

All antibiotics *other than the following very specific exceptions* require grounding (CD). The listed exceptions do not forgive you from doing something obviously inadvisable such as allowing a sick person to fly.

Aviation personnel on the following approved antibiotics may be considered for an up chit prior to the completion of the course of therapy as long as the condition being treated has resolved in all significant aspects with no adverse reaction that might compromise safety of flight or mission completion.

ANTI-MALARIALS

Refer to Aeromedical Reference and Waiver Guide (ARWG) section on Malaria

ISONIAZID

No waiver needed when used for TB prophylaxis as long as the member remains under close evaluation by flight surgeon. This medication causes occasional liver damage, especially above age 35. All personnel are to be monitored in accordance with current preventive and occupational medicine guidelines.

MACROLIDES

Erythromycin preparations (includes long term low dose use for acne)

PENICILLINS

Ampicillin, amoxicillin, penicillin VK, Augmentin, dicloxacillin, etc.

QUINOLONES

Ciprofloxacin

TETRACYCLINES

Tetracycline family (includes long term low dose use for acne). **Minocycline is prohibited because of possible vestibular side effects**.

THE FOLLOWING ANTIMICROBIALS ARE CONSIDERED DISQUALIFYING:

NITROFURANTOIN

Waiver considered if under close observation of flight surgeon. Watch for pneumonitis or peripheral neuropathy.

SULFONAMIDES

Bactrim/Septra is CD, however waiver will be considered for long term use.

18.3 ANTI-HYPERLIPIDEMICS

GEMFIBROZIL (LOPID)

CD. Waiver considered after two months of treatment on a stable dosage with no side effects. Prior to initiating treatment, and at 3, 6, and 9 months, get AST, ALT, alkaline phosphatase, CPK and CBC. Perform lipid panel every 3 months for one year then every 6 months. Annual submission is required and must include results of current lipid panel and LFTs.

NIACIN

CD. No waiver.

RESINS (e.g. cholestyramine)

NCD if tolerated without side effects

STATINS

NCD. HMG Co-A reductase inhibitors (**pravastatin**, **simvastatin**, **lovastatin**, **atorvastatin**, etc.) are all NCD, a waiver is not required. Refer to ARWG section on hypercholesterolemia for additional guidance. Liver function tests, CBC, and CPK are recommended at baseline, 3, and 6 months, then annually. Liver enzyme elevations above three times normal are disqualifying.

18.4 ANTI-HYPERTENSIVES

ACE INHIBITORS (ACE-I)

CD. The entire family (**captopril**, **enalapril**, **lisinopril**, etc.) is CD but waiverable. Member must be grounded upon initiation of treatment. Waiver will be considered after 30 days of treatment if member's hypertension is controlled on a stable dosage of medication without evidence of side effects. If local pharmacy policy requires changing from one ACE-I to another, advise Code 342 of the change. Refer to ARWG section on hypertension for additional guidance.

ANGIOTENSIN RECEPTOR BLOCKERS (ARB)

CD. These agents may be used if member does not tolerate an ACE-I or has some other specific medical indication for its use. The same guidelines used for ACE-I apply.

ANTIADRENERGIC AGENTS (DOXAZOSIN, PRAZOSIN, ETC.)

CD. No Waiver. Call NAMI Code 342 for further guidance.

BETA BLOCKERS (for hypertension only)

CD. Beta blockers are not considered for waivers for Service Groups I or II personnel. Senior officers (LCDR and above) may be waived to Service Group 3 or Class II flying duties in non-tactical aircraft. All SGI, SGII, or tactical NFOs are considered NPQ, no waiver recommended. Designated Naval Aircrew will be considered for a waiver. Aviation personnel on beta blockers should not pull more than 2.5 Gs, so requests should state "transport/maritime/helo aircraft only." Air traffic controllers are usually waived. When beta blockers are used, preference shall be given to cardioselective agents such as atenolol.

CALCIUM CHANNEL BLOCKERS

AMLODIPINE (NORVASC)

CD. A second generation calcium channel blocker, amlodipine may be considered for waiver for use in the control of hypertension only after failure to control the condition on other approved agents. These cases must be reviewed individually by NOMI prior to issuance of an Aeromedical Clearance notice. Local Board is not authorized to issue a clearance notice for amlodipine use.

NIFEDIPINE (PROCARDIA)

CD. No Waiver.

COMBINATION AGENTS

CD. Combination agents may be used if the individual agents themselves are recommended for waiver. Follow the restrictions and guidelines outlined for each individual agent.

THIAZIDE DIURETICS

HYDROCHLOROTHIAZIDE (FOR HYPERTENSION)

CD. Hydrochlorothiazide (HCTZ), with or without triamterene or potassium replacement, can be used as a first line agent for treatment of hypertension in designated personnel. ACE inhibitors are preferred as they have a low incidence of aeromedically significant side effects and are generally well tolerated. See hypertension section of ARWG for waiver criteria and further guidance.

18.5 IMMUNIZATIONS

VACCINE ADVERSE EVENT REPORTING SYSTEM (VAERS)

The Vaccine Adverse Event Reporting System (VAERS) is used to report adverse events or reactions to all vaccines. VAERS, the primary U.S. vaccine safety monitoring system, encourages reporting of any unexpected or serious event occurring after any vaccination as well as adverse events occurring in persons following close contact with a vaccine recipient. An adverse event is any clinically significant medical event that occurs following administration of a vaccine. A VAERS report should be submitted even if it is not certain that the event was caused by the vaccine. Web reporting is available at http://vaers.hhs.gov/.

ANTHRAX

NOTE: There is currently an injunction issued by the U.S. Supreme Court putting a halt to ***mandatory*** anthrax vaccination. An Emergency Use Authorization currently remains in effect, permitting ***voluntary*** anthrax vaccination for personnel serving in CENTCOM or Korea for more than 15 consecutive days, as well as for designated special mission units. Complete information on this, as well as on the DoD Anthrax Vaccine Immunization Program, can be found at http://www.anthrax.osd.mil/.

BACKGROUND: Human anthrax vaccine was developed in England and the U.S. in the 1950s and early 1960s. The vaccine is U.S. Food and Drug Administration (FDA)-licensed and has been routinely given in the U.S. since 1970.

The vaccine has an excellent safety record. The most common side effects reported are mild discomfort (localized swelling and redness at the site of injection), joint aches, and in a few cases, nausea, loss of appetite, and headaches. There is no evidence from records at the Michigan Biologic Products Institute (which is the only U.S. producer of the vaccine) that the vaccine is associated with permanent local or systemic effects.

DOSAGE AND ADMINISTRATION: The current dose schedule for the U.S. vaccine consists of 6 shots given over an 18 month schedule and an annual booster thereafter.

Contraindications for use are sensitivity to vaccine components (formalin, aluminum hydroxide, benzethonium chloride) and/or history of clinical anthrax. Pregnant women should not receive this vaccine until after delivery. The vaccine should be stored at refrigerator temperature (not frozen).

A 12 hour grounding period is recommended for the anthrax vaccination.

CHOLERA

Sale of the only licensed cholera vaccine in the United States has been discontinued, and the CDC does not currently recommend the vaccine for travelers because of the brief and incomplete immunity it offers. In lieu of vaccination, proper hygiene and food and water precautions should be carefully emphasized.

DIPHTHERIA TETANUS (DT) AND TETANUS TOXOID

This vaccine is used to prevent bacterial elaboration of toxins resulting in muscular spasm/lockjaw, which is usually found in the setting of a contaminated wound. These vaccines are toxoids and are both known to be 95% efficacious. They are given every 10 years, however if a suspicious wound is encountered, the standard is to revaccinate if more than 5 years has elapsed since the last vaccination. The dose is 0.5 cc IM. Adverse events include frequent local reactions. Hypotonic, hyporesponsive episodes, seizures, and acute encephalopathy have been reported on rare occasions. A 12 hour grounding period is recommended for this vaccination.

HEPATITIS A

This is an inactivated virus vaccine which is given as a 1.0 cc dose IM, with a booster dose 6 to 12 months later. Protective levels of antibodies are detectable in 80 to 98% of recipients 15 days after the first dose, and in 96% after one month. Protection is expected to last 20 years. No significant adverse events have been reported, although some recipients experience local injection site soreness. Transient systemic symptoms are uncommon. In the USA, the presence of anti-HAV antibodies indicating past infection and probable immunity increases from about 10% in young children to about 75% in adults more than 50 years old. A 12 hour grounding period is recommended for this vaccination.

HEPATITIS B

This is an inactivated virus vaccine which is given as a 1.0 cc IM dose, with boosters at 1 and 6 months. Current CDC recommendations are to immunize everyone 18 years of age or younger and adults over 18 who are at risk. The at-risk population includes health care and public safety worker who might have contact with blood or body fluids, people who have more than one sex partner in six months, sex contacts of infected people, people who inject illegal drugs, hemodialysis patients, and household contacts of people with chronic HBV infection. Contraindications to vaccination include a history of allergic reaction to either baker's yeast or the hepatitis B vaccine. Mild soreness at the injection site is seen in approximately 1 out of 11 children and adolescents and 1 out of 4 adults, and mild to moderate fever is seen in up to 1 out of 14 children and 1 out of 100 adults. A 12 hour grounding period is recommended for this vaccination.

INFLUENZA

INJECTABLE INACTIVATED INFLUENZA VACCINE

This vaccine is composed of inactivated whole or disrupted influenza viruses and changed annually to reflect antigenic changes in the A and B strains of the virus that is in circulation.

Immunity after the standard 0.5 cc IM dose lasts about six months, so annual administration is required, ideally before the start of flu season. The vaccine is indicated in the elderly (>65), residents of chronic care facilities, those with cardiac, pulmonary or immunosuppressive diseases such as cancer and DM, and close contacts of those at risk. All active duty Navy and Marine Corps personnel are required to have one dose of this vaccine each year. The only contraindication is a bona fide history of generalized allergic reaction to the vaccine, eggs, or egg components. Effectiveness varies with how closely vaccine strains match the strains in the community, generally about 60-85%. A mild local reaction is the most common adverse effect, although some individuals have a transient mild "viral syndrome." A 12 hour grounding period is recommended for this vaccination.

FLUMIST

All active duty Navy and Marine Corps personnel are required to have one dose of influenza vaccine (IM or intranasal spray) each year. FluMist® (Influenza Virus Vaccine Live, Intranasal), is composed of live, attenuated influenza virus (LAIV) that is administered by nasal spray. It is used for the prevention of Influenza A and B in healthy adults under age 50 who are not pregnant. The 0.5mL dose is given as a 0.25mL spray in each nostril.

The immunization is less effective in those with pre-existing nasal congestion. The dose should be repeated if the patient sneezes following administration. Immunity after the standard intranasal dose declines during the year, so annual administration is required—ideally, before the start of “flu season.” There appears to be an increase in protective antibodies over time with subsequent doses. Effectiveness varies according to how closely the strains used to make the vaccine match those in the community.

The onset of symptoms after immunization usually occurs within the first 24 hours, with most symptoms presenting by the third day. The duration of symptoms is typically 1-2 days. The most common adverse effects include:

- headache 40%
- sore throat 28%
- tiredness 26%
- myalgias 17%
- cough, nasal congestion, and rhinitis 9-45%
- Less common adverse effects include chills, abdominal pain, diarrhea, vomiting, and otitis media.

A “self-canceling” grounding period of 72 hours after immunization is required to assess for symptom severity. Commanding officers may return aeronautically designated personnel to duty involving flight operations in less than 72 hours on the recommendation of a flight surgeon when necessary to meet “real world” operational commitments. The presence and severity of symptoms may require the grounding of some personnel for greater than 72 hours.

To minimize operational impact, commands may elect to stagger the administration of the vaccine to their personnel. For example, a command might elect to vaccinate 50% of eligible personnel one week and the remaining personnel the following week. Another option would be

to schedule immunizations immediately prior to a period when no flights are scheduled (e.g., just prior to a holiday weekend).

Additional information is available via the CDC website at,
http://www.cdc.gov/flu/professionals/vaccination/

JAPANESE ENCEPHALITIS

Japanese Encephalitis (JE), a mosquito-borne arboviral infection, is the leading cause of viral encephalitis in Asia with over 50,000 sporadic and epidemic cases reported annually. The inactivated virus vaccine, licensed in 1993, is administered as a 1.0 cc SC dose with an effectiveness of 80-90%. Intradermal dosing at two sites is as immunogenic as a single SC dose. Three doses during a 30 day period (days 0, 7, and 30) provides the longest immunogenic protection. A booster given at one year will significantly increase antibody titers, which may then persist for several years. An abbreviate schedule of immunizations given on days 0, 7, and 14 may be used if significant time constraints exist.

JE vaccination is associated with a moderate frequency of local and mild systemic side effects. About 20% of recipients experience local redness, swelling, or tenderness, and systemic side effects (fever, headache, malaise, and rash) have been reported in about 10% of vaccine recipients. An additional pattern of adverse reactions characterized by generalized urticaria and/or angioedema, and rarely respiratory distress or collapse, has been reported. These reactions occurred after a longer interval and usually after the first or second dose. The median time to onset of symptoms after the first dose is 12 hours, and 88% of reactions occur within 3 days. The interval after the second dose is longer, with a median time of 3 days and possibly as long as two weeks. After reviewing the experiences of I MEF personnel during the first several years of use, the original 3-5-3 day grounding regimen appears excessive based upon the actual observed incidence of reactions. **A 24 hour grounding period is recommended after each dose providing that aviators are formally briefed about possible delayed reactions.** Individuals who have a past history of urticaria or hypersensitivity phenomena should remain under the previous guidelines (3-5-3 grounding).

MEASLES/MUMPS/RUBELLA (MMR)

This vaccine, composed of live, attenuated viruses, is indicated in adults born after 1956 without a history of documented measles or measles/mumps vaccination. Some people vaccinated before 1980, especially if before 14 months of age, may be inadequately protected and now require revaccination. Contraindications include pregnancy, immunosuppression (except HIV), recent IG administration, or anaphylactic reactions to the immunization, eggs, or neomycin. Efficacy is 95% for all three components. Serious adverse events are rare, but include acute encephalopathy, parotiditis, and orchitis. Transient arthralgias may occur in up to half of first-time recipients, but arthritis and arthropathy are rare. About 5-15% of vaccine recipients have fever up to 21 days post-vaccination and 5% may develop a rash. One study assessed the incidence of adverse events after revaccination. This study noted local injection site discomfort and flu-like symptoms amongst 6.6% and 3.4% of male and female students respectively. The

4% rate of joint related complaints after revaccination was less than that found after primary vaccination. A 12 hour grounding period is recommended for this vaccination.

MENINGOCOCCAL

Each year, approximately 2,600 people contract meningococcal disease. Of these, 10 to 15% die. Of those who live, another 11 to 19% lose their arms or legs, become deaf, have problems with their nervous system, become mentally retarded, or suffer from seizures or strokes. The meningococcal vaccine is a polysaccharide vaccine that can prevent 4 types of meningococcal disease including 2 of the 3 most common in the United States and a type that causes epidemics in Africa. It is administered as a 0.5 cc SC dose, and is recommended for all children at their preadolescent visit, military recruits, college freshman living in dormitories, microbiologists who might be exposed to the bacteria, anyone with an immune system disorder, asplenic patients, people who might have been exposed to meningitis during an outbreak, and anyone traveling to or living in a part of the world where meningococcal disease is common. Approximately half of vaccine recipients experience mild side effects, such as pain or redness at the injection site. A small percentage of patients also develop fever. Although rare, serious allergic reactions can develop within a few minutes to hours of vaccination. Of note, a few cases of Guillan-Barre syndrome have been reported among people who received the MCV4 vaccine, however there is currently not enough information to determine if this was caused by the vaccine. A 12 hour grounding period is recommended for this vaccination.

PLAGUE

This vaccine is composed of a suspension of killed bacteria, and is given as a dose of 1.0 cc IM. It is used in laboratory workers and travelers to endemic areas. The vaccine is given as a series with a primary dose as above, then 0.2 cc IM doses at 4 weeks and 6 months. Boosters are given every 6 to 12 months as long as exposure continues. There is a 90 to 93% antibody response however efficacy is uncertain. Up to 10% of recipients will develop local reactions. Sterile abscesses and hypersensitivities have also been reported.

PNEUMOVAX (PPV23)

This vaccine was designed to decrease the risk of pneumococcal infection in susceptible individuals such as military recruits, asplenic patients, immunosuppresed individuals, and those over 65. This preparation consists of purified polysaccharide coats of 23 serotypes and is considered to be 60 to 80% efficacious, reducing serious sequelae of infection by about 50%. In asplenic patients it is about 13 -33% effective in producing a two-fold increase in antibody titer. The dose is 0.5 cc IM or SC, and a booster is recommended in high-risk (transplant, nephrotic syndrome, asplenic) individuals at 6 years. Pneumovax has been associated with a 50% local reaction rate, an arthus-like reaction with booster doses, and rarely, anaphylaxis. A 12 hour grounding period is recommended for this vaccination.

POLIO

The inactivated polio virus (IPV) is given as a dose of 0.5 cc IM or SC. The use of oral polio vaccine (OPV) is no longer recommended. Travelers to endemic areas who have received primary immunization during childhood should consider a single booster (IPV) in adulthood, while those who were never vaccinated should be vaccinated according to current CDC guidelines. A 12 hour grounding period is recommended for this vaccination.

SMALLPOX

BACKGROUND: The World Health Organization effectively used smallpox vaccine to eradicate natural smallpox from the planet however regimes hostile to the United States may possess strains of the smallpox virus for use as a biological weapon. While routine vaccination is not recommended for the general population, military and other personnel who serve in high risk parts of the world may receive smallpox vaccine to protect them from the disease in the event of a biological attack.

Expect more side effects within the vaccinated population than normally seen with other vaccines. One expert stated that approximately 10% of vaccine recipients may have side effects significant enough to cause possible distraction during flying activities. The time range for development of side effects varies from day 0 until day 14, with most occurring within 3 to7 days post-vaccination.

GROUNDING RECOMMENDATIONS: The present policy per OPNAVINST 3710.7T is a 12-hour grounding for immunizations. **However, in view of the complications seen with the smallpox vaccination, it is recommended that a 24 hour grounding period be observed.** It is also recognized that complications from the immunization are most likely in the 3 to 7 day period post immunization. For this reason, close observation and follow-up is recommended by the Flight Surgeon or health care provider. Personnel should be specifically briefed to report any symptoms or complications during this 3 to 7 day period and to have them evaluated. Depending on the severity, the Flight Surgeon may ground the aviator until symptoms have resolved.

ADDITIONAL INFORMATION: Please review the attached "Smallpox Fact Sheet - Information for Clinicians" and visit the CDC web site and military smallpox website (http://www.smallpox.mil/) for additional information. Use the CDC Smallpox Adverse Event Reporting web site to report any adverse events resulting from the administration of the smallpox vaccination.

TYPHOID AND ORAL TYPHOID

Vaccine is made of a killed suspension of the bacteria, or a new oral 4 dose preparation. The injection is a 0.5 cc IM dose at zero and four weeks with about 50-76% efficacy, and protection for travelers to endemic areas lasts only a few months. This is contrasted with the oral form, which is equally efficacious but confers immunity to the 21a strain that lasts for years (booster required at least every 4 years). It is given every other day before meals for a total of 4 doses, and must be kept refrigerated. Errors in compliance reached 30% of individuals in one study, so direct observation may be the way to go. Adverse reactions to typhoid injections include

frequent fever, local swelling and pain, and consequently require a 12 hour downing period. There are no reactions reported to the oral typhoid, therefore no grounding is necessary.

YELLOW FEVER

This vaccine is used to prevent infection with this flavivirus and its subsequent jaundice, hemorrhage, and albuminuria in travelers to endemic areas (e.g. South America and Africa). It is given as a 0.5 cc SC dose. Booster vaccinations are recommended every 10 years. Efficacy is noted to be high, but adverse side effects include encephalitis/encephalopathy (though fewer than 1 in a million cases), and anaphylaxis in those individuals allergic to eggs. A 12 hour grounding period is recommended for this vaccination.

Note on Combined Administration of Vaccines:

A number of these vaccines can be given together. Generally, any live virus vaccine can be given with any killed agent or toxoid as long as they are given at the same time and in different anatomic locations. For example, typhoid may be given with either plague or yellow fever. Hepatitis A and yellow fever may be given in the same session. One exception to this is cholera and yellow fever. Administration of these vaccines within 3 weeks of one another results in a poor antibody response. Unless there is insufficient time, 3 to 4 weeks between live virus vaccinations should be sought for maximal antibody production. If possible, vaccines frequently associated with systemic side effects (cholera, typhoid and plague) should not be given simultaneously so that toxicities will not overlap and that a causative agent can be determined should a reaction occur.

Vaccines and Pregnancy:

Refer to specific immunization guidelines for vaccination recommendations and precautions during pregnancy.

18.6 MISCELLANEOUS

ALLOPURINOL

CD. Waivers are recommended to SG3, Class II, or Class III. Re-evaluation for upgrade from SG3 to SG1 is considered in 3 months if member remains asymptomatic and on a stable dose of medication.

ANTI-HERPETIC MEDICATIONS (ACYCLOVIR, VALACYCLOVIR, ETC)

CD. Waivers are considered for suppressive/prophylactive therapy. Initial or intermittent therapy does not require a waiver. The patient should be grounded and monitored for side effects for a minimum of 3 days during the initial treatment or upon initiation of suppressive therapy. The need for suppressive therapy should be reassessed on an annual basis. Topical acyclovir is NCD.

ANTIHISTAMINES (SEDATING)

CD. Member should be grounded for the duration of therapy.

ANTIHISTAMINES (NON-SEDATING)

NCD. Allegra and Claritin are NCD if given in accordance with the Allergic/Vasomotor Rhinitis section of the Waiver Guide. Refer to this section for additional restrictions and clarification. **Zyrtec, although considered by some to be non-sedating, still has a moderate sedating effect and is therefore not approved (CD) for use in aviation personnel.**

CLOMIPHENE (CLOMID)

CD. No Waiver

DECONGESTANTS:

CD. Require temporary grounding while in use.

DEPO-PROVERA

NCD.

FINASTERIDE (PROPECIA/PROSCAR)

CD. Waiver considered after a two week grounding. If the patient remains asymptomatic, a LBFS may issue an up chit. **Finasteride** may be utilized for prostatic hypertrophy or alopecia. DoD pharmacy does not allow prescriptions of **finasteride** for hair loss.

GRISEOFULVIN

CD. Waiver considered if under close observation by local flight surgeon. Watch for bone marrow suppression.

H2 BLOCKERS (ranitidine, cimetidine, famotidine, etc.)

CD. Waiver required for any chronic use. Refer to the Waiver Guide section on reflux esophagitis for additional information.

INHALED STEROIDS

CD. Decisions are individualized. Any chronic use requires a waiver. Call NOMI Code 42 for additional guidance.

ISOTRETINOIN (ACCUTANE, AMNESTEEM, CLARAVIS, SOTRET)

CD. No waiver. Resumption of flight status is permitted after member is off medication for 3 months, has a normal slit lamp exam, and triglyceride levels are documented as normal. Cystic acne, if severe enough to need **Accutane**, may be disqualifying. The 3 month delay after cessation of treatment also allows for an evaluation of how the member does without the medication.

ITRACONAZOLE (SPORANOX)

NCD. While not approved for chronic use, itraconazole has a safer profile than ketoconazole, and need not be used on a chronic basis to be effective. Recommended use in aviation personnel is to administer in week-long pulses each month for four to six cycles. Aviators should be grounded for the first 48 hours of each cycle, but since it is not administered chronically, unlike griseofulvin, waiver will not be required. Recommended initial treatment is over a weekend to allow return to flight duties the following Monday, thus minimizing flight schedule loss.

LEVONORGESTEROL (NORPLANT)

NCD. No waiver is required, however personnel should be grounded for the first two weeks of use to assess tolerance.

LEVOTHYROXINE (SYNTHROID)

CD. Waiver may be requested when member is clinically and chemically euthyroid on stable dosage.

LINDANE (KWELL)

NCD. Kwell can be absorbed in variable amounts and give some significant CNS side effects. Aviation personnel must be grounded for 48 hours after the compound is washed off.

MESALAMINE (ASACOL, ROWASA, ETC.)

CD. A major advantage of mesalamine is that it avoids some side effects associated with the sulfapyridine moiety of sulfasalazine. Waiver will be considered after maintaining clinical remission for one month without evidence of side effects.

MINOXIDIL (TOPICAL)

CD. No Waiver.

NEDOCROMIL (TILADE)

CD. Tilade may be considered for waiver for in designated aviation personnel for the preventive treatment of mild to moderate asthma or cold-induced and exercise-induced bronchospasm. Member will be eligible for waiver consideration and return to flight status at a minimum two weeks after remaining symptom free on a stable dose of medication with demonstrated normal pulmonary function tests. Waivers are restricted to non-high performance aircraft.

NASAL STEROIDS (Flonase, Nasonex, Rhinocort, etc.)

NCD. Refer to the Allergic/Vasomotor Rhinitis section of the waiver guide for additional restrictions and clarification.

NICORETTE GUM

NCD if the following conditions are met:

1. Enrolled in formal organized stop smoking program.

2. Close observation by flight surgeon.

3. No adverse effects.

4. Duration of use does not exceed three months.

NICOTINE TRANSDERMAL SYSTEM (NICODERM)

NCD. Aviators should be grounded for 48 hours following application of first patch.

NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS):

ASPIRIN

NCD for occasional use or at cardioprotective dosing. Other chronic use is CD and requires a waiver.

IBUPROFEN/NAPROXEN

NCD. Medication can be used for short term use under direct supervision of Flight Surgeon. Any chronic or high dose use is disqualifying. If recommending that an aviator continue to fly during treatment, consider the underlying reason for its use. It may be the condition which is disqualifying.

INDOCIN

CD. No waiver. Ground during medication use and for two weeks after medication is completed.

PROBENECID

CD. Waiver is required for any long term treatment.

PROGESTASERT IUD

NCD. Any grounding period at discretion of the local Flight Surgeon.

PROTON PUMP INHIBITORS (omeprazole, lansoprazole, rabeprazole, etc.)

CD. Waiver required for chronic use. Refer to the Waiver Guide section on reflux esophagitis for additional information.

SILDENAFIL (VIAGRA)

CD. Prohibited for use by any aircrew. **Waiver is not recommended**. The same restrictions apply for vardenafil (Levitra) and tadalafil (Cialis.)

The literature identifies a crossover effect to the cardiovascular and retina blood flow systems. The effects of sildenafil on color vision appear to affect the blue spectrum more than others, while dark colors tend to appear darker. It can also cause blurred vision. The cumulative effects are unknown and very limited research is available.

SUCRALFATE (CARAFATE)

NCD when used in dosages of 1 gm bid or less. However, the diagnosis of peptic ulcer disease is certainly CD and requires a waiver.

SULFASALAZINE (AZULFIDINE)

CD. Waiver considered after maintaining clinical remission for one month without evidence of side effects.

TAMOXIFEN

CD. No Waiver.

TOPICAL COMPOUNDS

As a general rule, medications applied to the surface of the body which are not absorbed to any significant extent are NCD. However, please see notes on Kwell.